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In the Supreme Court of the United States

OCTOBER TERM, 1970

No. 464

GAINESVILLE UTILITIES DEPARTMENT, CITY OF GAINESVILLE, PETITIONERS

v.

FLORIDA POWER CORPORATION

No. 469

FEDERAL POWER COMMISSION, PETITIONER

v.

FLORIDA POWER CORPORATION

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIFTH CIRCUIT

BRIEF FOR THE FEDERAL POWER COMMISSION

OPINIONS BELOW

The opinion of the court of appeals (App. 489–503) is reported at 425 F. 2d 1196. The opinions and orders of the Federal Power Commission (App. 352–381, 409–

417) are reported at 40 FPC 1227 and 41 FPC 4. The opinion of the hearing examiner (App. 313–341) is reported at 40 FPC 1248.

JURISDICTION

The judgment of the court of appeals (App. 504) was entered on May 1, 1970, and was modified in a manner not here relevant by order of June 17, 1970.[1] The petition for a writ of certiorari in No. 464 was filed on July 28, 1970. The petition in No. 469 was filed on July 29, 1970.[2] The petitions were granted on October 26, 1970 (App. 505). The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1) and Section 313(b) of the Federal Power Act (16 U.S.C. 825l (b)).

QUESTION PRESENTED

Whether the Federal Power Commission, in ordering the interconnection of two electric power systems, properly conditioned the interconnection upon compensation terms based on the relative burdens that each places on the interconnected network.

STATUTES INVOLVED

Section 202(b) of the Federal Power Act, 16 U.S.C. 824a(b), provides:

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[1] That order granted the Commission's motion to modify the judgment to eliminate the assessment of costs against the Commission.

[2] On August 28, 1970, Florida Power Corporation filed cross-petitions (Nos. 651 and 652) for writs of certiorari which are still pending before the Court.

(b) Whenever the Commission, upon application of any State commission or of any person engaged in the transmission or sale of electric energy, and after notice to each State commission and public utility affected and after opportunity for hearing, finds such action necessary or appropriate in the public interest it may by order direct a public utility (if the Commission finds that no undue burden will be placed upon such public utility thereby) to establish physical connection of its transmission facilities with the facilities of one or more other persons engaged in the transmission or sale of electric energy, to sell energy to or exchange energy with such persons: *Provided,* That the Commission shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel such public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers. The Commission may prescribe the terms and conditions of the arrangement to be made between the persons affected by any such order, including the apportionment of cost between them and the compensation or reimbursement reasonably due to any of them.

STATEMENT

The Federal Power Commission, acting pursuant to Section 202(b) of the Federal Power Act, determined that Florida Power Corporation should interconnect its electric system with that of the City of Gainesville on terms similar to those now applicable to voluntary interconnections among other electric

systems. The court below held that the Commission had authority under Section 202(b) to require an interconnection with such a municipally-owned power system but disapproved the method utilized by the Commission in determining the provisions for compensation in its interconnection order.

The City of Gainesville Electric System. The City of Gainesville through the Gainesville Utilities Department operates an electrically isolated power system that serves approximately 17,000 retail customers in a 22-square mile area consisting of the city and adjacent portions of Alachua County, Florida.[3] In 1965, the total generating capacity of the Gainesville system was 108.4 megawatts [4] while the peak load experienced at any one time during the year was 51.1 mw (App. 314, 353–354). At that time, the generating capacity consisted of five steam electric generating units ranging from approximately 5 to 50 mw (App. 229, 314; Ex. 73); two 15 mw gas turbines were scheduled for operation in 1967–1968 (App. 314). The 1965 installed reserve capacity (generating capacity minus annual peak load) of Gainsville's system was 57.3mw or 112% of its annual peak load (App. 354, 411). Thus the city's reserves were sufficient to cover the loss of the city's largest generating unit—the contingency for which isolated electric systems usually plan (App.252).

[3] The operating statistics in this brief unless otherwise indicated reflect 1965 or 1966 electric system operations as developed in the record.

[4] A megawatt (mw) is a unit of electrical power equal to 1,000 kilowatts or 1,000,000 watts.

Under normal operating conditions, Gainesville maintains enough of its generating units in service—never less than two—to provide adequate spinning reserves [5] to meet load variations. The city's remaining units are available for service within two hours (App. 204) to meet any losses of generation in excess of the available spinning reserves. While in such a circumstance there would be a partial interruption of service, service could always be restored within two hours up to the limit of Gainesville's installed capacity.

The Florida Power Corporation System. Florida Power, a utility subject to the jurisdiction of the Commission under Section 201 of the Federal Power Act, operates an electric system with substantial generation, transmission and distribution facilities serving approximately 370,000 customers in the west, northwest and central sections of Florida covering approximately 20,600 square miles (App. 354). In 1966, Florida Power's plants had an aggregate generating capability of 1595 mw and maximum load requirement of 1232 mw. A 525 mw unit was scheduled for service in December 1969 and a nuclear fueled 875 mw unit for 1972. Florida Power anticipated a peak load of 1826 mw in 1970 (App. 354). Florida Power has been making retail sales in the Gainesville area since 1927 (App. 112, 317).

[5] Spinning reserves are provided by generating units operating at less than capacity. Such units can be called upon to the limit of their capacities to meet immediately an increase in load or a loss of another generating unit. Installed capacity, on the other hand, refers to the generating capacity of units whether or not in operation.

The Florida Operating Committee. Through some ten interconnections, Florida Power operates in parallel with four other Florida utilities—the Florida Power and Light Company, the Tampa Electric Company and the two municipal systems of Jacksonville and Orlando (App. 316–317). All five utilities constitute the membership of the Florida Operating Committee, originally established in 1959 and expanded to include Jacksonville and Orlando in January 1966 (App. 154–155). While the Committee is informal in nature with no authority to commit its members to any specific course of action, it undertakes planning studies and serves as a medium through which the technical operations of its members are coordinated (App. 154–155; 316–317). Through such coordination, the operating reserve[6] needs of the five utility systems are determined and each member voluntarily agrees to maintain a designated portion of such needs (App. 164). There is no contractual assurance that operating reserves from the other systems will be available when needed.[7] Furthermore, each utility has the responsibility for determining its own installed reserve needs. As a result of the sharing of reserves, each member utility carries considerably less installed and operating reserve generating capacity than would

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[6] "Operating" reserves are comprised of "spinning" plus "quick-start" reserves. See *infra*, p. 14, n. 10.

[7] Individual members of the Committee are, of course, free to enter into contracts amongst themselves. Florida Power, for example, has bilateral contracts with both the Tampa Electric Company and Orlando for the purchase of power to coordinate the installation and maintenance of generating equipment and for emergency back-up (App. 317).

be required if it were electrically isolated (App. 164, 317).

Finally, all members of the Committee are in turn members of the Interconnected Systems Group, an organization consisting of about 140 interconnected electric utilities spanning the southeastern and central portions of the United States (App. 354). All members of the group operate in synchronism and stand ready to assist one another in case of emergency. Florida Power participates in the multistate group through interstate interconnections with the Georgia Power Company and the Gulf Power Company, both operating subsidiaries of the Southern Company (App. 316–317, 354).

The Commission Proceedings. In November 1965, Gainesville filed with the Commission an application for an interconnection with Florida Power (App. 300–312b). In addition to seeking the interconnection, Gainesville alleged unlawful discrimination in violation of the Federal Power Act on the grounds that Florida Power had interconnected with other electric systems while refusing to interconnect with Gainesville on similar terms.

Following extensive hearings ordered by the Commission, the examiner issued an initial decision in January 1968 (App. 313–341). The examiner, *inter alia,* rejected Florida Power's contention that the Commission had no jurisdiction under Section 202(b) of the Power Act to order an interconnection (App. 335–336), and found that such an interconnection would be beneficial to both utilities and the public

(App. 328). He rejected Florida Power's request for a set standby charge of about $150,000 annually, but recommended that in lieu thereof each party should share with the other on a 50–50 basis its estimated operating savings made possible by the interconnection ~~app. supp.~~ (pp. 330-333).

In an opinion and order issued in November 1968 (App. 352–381), the Commission affirmed the examiner's jurisdictional finding and also agreed that interconnection would be in the public interest. The Commission found that each system would reap financial and engineering benefits from the interconnection, Florida Power would not be required to enlarge its generating facilities and its ability to render adequate service to its customers would not be impaired (App. 356–357). The Commission's order specified compensation terms for actual energy transfers across the interconnection as a result of its order (App. 361–362); these charges were subject to little controversy and were not challenged on review.

The Commission rejected, however, both the examiner's conclusion that a 50–50 sharing of operating savings was appropriate and Florida Power's contention that it should receive a fixed standby charge for the emergency or back-up service the interconnection would provide (App. 364). The Commission held that compensation for services rendered among utilities of an interconnected network must be based on an analysis of the electrical burden each system places on the network, not of the benefits or savings that each participant realizes over alternate methods

of providing generating capability (App. 357–358, 364–365). Only this test, the Commission noted, would avoid an economic penalty for being the last to join the interconnected network (App. 358).

Analyzing the facts of this case, the Commission found that Gainesville would not place a disproportionate burden on the interconnected network (App. 363) and that Gainesville would contribute its proportionate share of instantaneous emergency service as required (App. 365). The Commission emphasized that neither Florida Power nor Gainesville was being directed to provide firm power service to the other (App. 363, n. 4)[8] and also noted that Gainesville would be required to expend some $3,000,000 for the interconnection while Florida Power would incur no expense (App. 368, 413–414).

Finally, the Commission found that neither Florida Power nor other power companies had imposed standby charges comparable to those being sought from Gainesville in any contracts covering voluntary interconnections (App. 360, n. 3).

Under these circumstances, the Commission held that Florida Power "plainly bears the burden of jus-

[8] The reserves of the interconnected system will be available to Gainesville only on an "if and when available" basis. There will be times when the system will have no spinning reserves available for short periods of time, *e.g.*, if the interconnected system's largest unit goes out unexpectedly or if transmission interconnections are open. In the unlikely event that two large units were to go out within a short period, there might be no reserves available on the system for a few hours. If Gainesville were to suffer a large outage during such a period, it would obtain no assistance from the interconnection.

tifying an apparently discriminatory imposition in this one instance" (App. 367), and that the burden had not been met.

The Court of Appeals Decision. On petition for review, the court of appeals sustained the Commission's holding that it had jurisdiction to require Florida Power to interconnect with Gainesville (App. 490, 497–501). Enforcement of the Commission's order was denied, however "insofar as no provision for the reasonable compensation to Florida Power is made" (App. 503). While the court found that there would be substantial benefits to the city, it stated that the benefits which the Commission found accruing to Florida Power were "largely illusory" (App. 501–502). The court concluded that the Commission's policy of proportionate utility responsibility resulted in a small system receiving high benefits and, because of its size, no "real obligations" whereas a large system receives no benefits but does "incur real, substantial responsibilities" (App. 503). Accordingly, the court held that the Commission's policy does not meet the standard of reasonable compensation provided in Section 202 (b) of the Act, and remanded the case for the Commission to fix a formula for computing reasonable compensation (*ibid.*). The Court enforced the remainder of the Commission's order, noting that compliance therewith need not be delayed pending resolution of the compensation issue (*ibid.*).

ARGUMENT

INTRODUCTION AND SUMMARY

1. The current rapid growth of the country's power demands makes the interconnection of electric power systems a matter of national importance, and the Federal Power Commission, pursuant to its statutory mandate,* has vigorously sought to encourage them. Interconnection allows utilities to share generating reserves and to install larger and more efficient generating units than would otherwise be possible, thus saving capital and operating expenses and significantly increasing reliability.

Under Section 202(b) of the Federal Power Act, the Commission is empowered, upon application of any state commission or any person engaged in the sale of electric energy, to order any utility subject to its jurisdiction to establish physical connection of its transmission facilities with those of another utility. The statute further empowers the Commission to prescribe the terms and conditions of the ordered interconnection, including "the apportionment of cost between them and the compensation or reimbursement reasonably due to any of them."

Acting pursuant to the authority of Section 202(b), the Commission held that interconnection in this case was warranted; Florida Power does not contest this aspect of the Commission's order or the provisions for payment for power actually used. The matter that is in contest here is whether the Commission properly

*Section 202(a) of the Federal Power Act, 16 U.S.C. 824(a), specifically directs the Commission to encourage interconnections.

held that a party to an interconnection need not pay a standby charge for the emergency service made available to it simply because it has a greater economic need than the other has for the back-up service. We submit that the Commission properly concluded that standby charges are not appropriate where the parties assume proportionate responsibilities and can be expected to make proportionate electrical use of the interconnection.

The Commission's approach to compensation is appropriate for three distinct reasons. First, it will encourage utilities to seek interconnections by avoiding the imposition of economic penalties on small isolated utilities seeking to join much larger interconnected systems. Second, the approach reflects the generally prevailing practice in the industry for voluntary interconnections. Finally, the Commission has followed cost concepts which have long inhered in the regulation of utilities and the fundamental principle that utilities are not entitled to economic rents resulting solely from their size or relative economic power. See *South Carolina Generating Co.* v. *Federal Power Commission*, 249 F.2d 755 (C.A. 4), certiorari denied, 356 U.S. 912.

2. In applying its test of evaluating relative burdens and responsibilities, the Commission correctly concluded that, as Gainesville would not disproportionately draw on the interconnection for emergency power and would meet its responsibilities towards the

interconnected network, no standby charge by Florida Power was appropriate. There is no merit to Florida Power's contention that Gainesville should bear a portion of the annual charges associated with Florida Power's extensive backbone transmission grid. Under prevailing industry practice, Gainesville will meet its obligations with respect to transmission facilities by assuming the $3,000,000 cost of effecting the interconnection.

Finally, the record fully supports the Commission's finding that substantial benefits would in fact accrue to Florida Power. The court below erred in rejecting the Commission's analysis and conclusion that such benefits compared favorably with the benefits which would be realized by Gainesville.

3. The decision of the court of appeals, while on the surface appearing to give the Commission great leeway to adopt a formula to determine compensation terms, rejects the Commission's "proportionate utility responsibility" approach and requires an entirely different approach which would reflect in some manner the economic benefits received by the parties to the interconnection. In so acting, the court failed to give due deference to the fact that Congress has entrusted the regulation of electric utility interconnections to the informed judgment of the Commission and not to the preferences of a reviewing court. See *Permian Basin Area Rate Cases,* 390 U.S. 747, 767; *Federal Power Commission* v. *Hope Natural Gas Co.,* 320 U.S. 591, 602.

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I. THE COMMISSION PROPERLY DETERMINED THAT COMPENSATION AMONG INTERCONNECTED UTILITIES SHOULD BE BASED UPON A PROPORTIONATE SHARING OF ELECTRICAL RESPONSIBILITIES

A. THE BENEFITS OF INTERCONNECTION

To assure reliability of service, each electrical system, no matter how large or small, must maintain or have access to sufficient reserve capacity to meet unexpected demands for power or to cover scheduled or forced outages of its generation equipment.[10] If such reserve capacity is not immediately available when needed, a blackout or brownout may be precipitated. The amount of reserves a system normally maintains is essentially dependent upon the size of its largest generating unit (App. 444), since the system must, at the minimum, be in a position to replace that unit

[10] Reserve capacity must be sufficient in two distinct respects. First, at any given point in time, there must be adequate instantaneous or spinning reserves available to meet load increases and outages as they occur. Because spinning reserve requirements may fluctuate from moment to moment depending upon load variations, additional reserves (commonly referred to as "quick-start" or "ready") are necessary which can be called upon on short notice—usually ten minutes or less. In general industry terminology, spinning and quick-start reserves are collectively referred to as operating reserves, although the Florida Operating Committee designates operating reserves as "ready reserves." Throughout this brief, the general industry terminology will be used. Second, there must be sufficient installed reserve capacity that can be placed into operation as necessary to assure that adequate operating reserves will be available at the time of the annual peak load of the system, after appropriate allowance is made for scheduled on forced outages.

should it fail while in service.[11] The interconnection of several companies greatly reduces the total reserve capacity that would be required if each company operated independently, since each company need provide only a proportionate share of the operating and installed reserve requirements of the interconnected system. The savings made possible by this sharing of reserves can best be illustrated by the following example.

Assume that four electric systems operate in isolation and that each has an annual peak load of 500 mw served by several generating units the largest of which is 200 mw. At a minimum, each system would have to provide 700 mw of installed generating capacity (500 mw to cover the annual peak load plus 200 mw of installed reserves equal to the largest unit). If we assume further that each system operates its

[11] Relatively small electric systems, for the most part, do not maintain either installed or operating reserves in excess of the capacity of their largest units; larger systems, however, will usually establish installed and operating reserve requirements in excess of the size of a single unit, depending upon the mathematical probability of simultaneous outages of generating equipment on a system. Additionally, varying combinations of spinning and quick-start reserves are utilized by different systems to meet operating reserve requirements. The Florida Operating Committee has established an operating (or "ready," in their terminology) reserve requirement equal to 1½ times the capacity of the largest generating unit operating at any given time on the interconnected system of the Committee's members. Two-thirds of this amount must be spinning with the remainder available for service in ten minutes or less (App. 164).

200 mw unit near capacity throughout the year,[12] spinning reserves equal to the output of that unit would constantly be required. If the four systems are to be interconnected pursuant to the Florida Operating Committee formula, total generating capacity need not exceed 2300 mw (total annual peak load—if all peaks occur during the same period—plus operating reserves of 300 mw, *i.e.*, 1½ times the largest generating unit). This 2300 mw capacity requirement would be met by requiring each system to maintain generating capacity equal to 115 percent of its annual peak load. Each system would thus have to maintain only 575 mw of generating capacity—125 mw less than would be required if operating in isolation. The interconnected system as a whole would require the constant maintenance of 200 mw of spinning reserves and 100 mw of quick-start reserves; each system's pro rata share of operating reserves would amount to only 75 mw. Thus, interconnection of the four systems would result in substantial capital savings by reducing installed generating capacity requirements and substantial operating savings by reducing operating reserve requirements.

Interconnection also permits utilities to install larger, more efficient generators than would otherwise be feasible, as the losses in generating capacity which might be brought about by outages of such larger generators would in part be covered by the extra reserves made available through interconnection (although, of course, if a new unit exceeded in size

[12] Larger units are generally more efficient than the smaller units and thus the smaller units would be shut down first as load levels decrease.

the largest existing unit on the interconnected system, the reserve requirements of the system as a whole would increase).

B. THE COMMISSION'S APPROACH ENCOURAGES INTERCONNECTIONS AND IS CONSISTENT WITH INDUSTRY PRACTICE AND GENERAL REGULATORY PRINCIPLES.

The Commission concluded that, in order to maximize interconnections to achieve the above-described benefits, it is necessary that the terms of compensation between utilities required to interconnect reflect only the net electrical burden each utility places upon the interconnected system (App. 358). We shall set forth at pages 26–30, *infra,* our reasons for believing that the Commission properly concluded that Gainesville would not disproportionately draw on the proposed interconnection with Florida Power. In this section, we shall show the appropriateness of the general principle that standby changes should not be imposed in such a situation.

1. *Encouragement of Interconnections.* In refusing to impose a standby charge on Gainesville, the Commission recognized that a utility already a member of an interconnected pool would normally be in less need of an interconnection with a particular isolated system than the isolated utility would be, and that the benefits of interconnection to the isolated utility in terms of immediate savings of capital and operating expenses would normally be larger. Consequently, were compensation to reflect to some degree such savings, an isolated electric system joining a power pool would almost always be required to make substantial payments even though it did not draw disproportion-

ately on the interconnected network for emergency power. These added charges would make it more likely that small utilities would forgo requesting interconnection. The Commission, therefore, properly rejected the imposition of such "economic penalties for being the last one on the interconnected network" (App. 358).

In addition to discouraging interconnections, imposition of the type of standby charges for emergency power sought by Florida Power would, as the Commission found (App. 365), tend to diminish the benefits of interconnection by penalizing utilities for installing large generating units to meet projected growth in annual peak loads. Under Florida Power's proposal, its standby charge would be based directly on the size of Gainesville's largest generating unit (App. 331), presumably on the theory that the amount of emergency power that Gainesville might need would depend on the size of its largest unit. Thus, if Gainesville were to install a unit in excess of 50 mw (its largest unit to date), the standby charge to Florida Power would increase.[13] Gainesville, and other similarly situated utilities—should Florida Power's type of standby charge become commonplace—would thus be likely to forgo the economies of large generating units [14] in favor of multiple, less

[13] The standby charge would presumably be limited by the capacity—which could always be increased—of the interconnection to deliver emergency power.

[14] Large generating units permit both capital savings—as the construction (including land acquisition) costs per mw of capacity decreases as the size of the generating unit increases—and operating savings—as larger units generally operate more efficiently, thus reducing fuel and other costs.

efficient smaller units. In short, even if interconnections continued to occur in the face of standby charges, the benefits flowing from such interconnections would not be maximized.

2. *Consistency with industry practice.* The Commission's authority to order interconnections under Section 202(b) of the Federal Power Act can, by the terms of the statute, only be exercised upon the application of a state commission or an electric utility. The vast majority of interconnections between utilities are effected voluntarily. Imposition of additional charges, not heretofore thought justifiable by the industry, on small utilities might well disrupt the entire composition and structure of the electric industry—which is now composed of systems of diverse size working together in power pools based on the premise that a sharing of burdens and responsibilities is fair to all. If the larger utilities can lawfully impose additional charges upon smaller utilities, either initially or when pooling arrangements can be reopened, it seems improbable that they will hesitate to do so. In contested interconnection cases, therefore, it is appropriate that Commission decisions establishing compensation terms take into account the terms of current interconnection arrangements negotiated at arms length. An examination of the terms governing voluntary interconnections to which Florida Power is a party and of the terms prevailing among other interconnected utilities demonstrates that the Commission's decision in this case does reflect prevailing industry practice.

As noted above (*supra,* pp. 6–7), Florida Power is interconnected with the other members of the Florida Operating Committee and with two operating subsidiaries of the Southern Company. Among the Committee members, no standby charge for emergency service is paid by Florida Power to Florida Power & Light—by far the biggest member of the Committee—nor does Florida Power receive any such charge from Tampa Electric, Orlando or Jacksonville, its smaller partners. Additionally, neither Florida Power nor the other Committee members pay a standby charge to any subsidiaries of the Southern Company through which they receive back-up power from other parts of the country. Finally, as the Commission noted (App. 360, n. 3), not one of the pooling agreements and bilateral agreements between large and small systems reviewed by the Commission's staff (App. 441; Ex. 99) provides for any standby charge for back-up service of the type sought to be imposed by Florida Power on Gainesville. As none of these voluntary arrangements disclosed any attempt by the utilities involved to calculate relative benefits in terms of savings in capital and operating expenses made possible by an interconnection [15] and to reflect such relative benefits in compensation terms, the Commission was fully justified in rejecting such an approach here.

[15] Florida Power acknowledged before the Commission that there would be administrative difficulties in attempting to calculate annual savings in dollars as would have been necessary under the examiner's proposed formula for splitting on a 50–50 basis the joint savings of the two utilities from the interconnection (App. 364).

Florida Power also asserts (see App. 368) that its proposed annual standby charge of about $150,000[16] is justified to reimburse Florida Power for a pro rata share of the cost of maintaining its extensive transmission system, without which emergency power could not be transmitted to Gainesville when needed. Again, reference to prevailing industry practice reveals that transmission network costs are not shared by parties to an interconnection provided that each party meets certain minimal responsibilities.[17]

Staff witness Abraham Braitman, an electrical engineer with the Commission, testified[18] at some length concerning the varying pooling and coordinating agreements that exist among interconnected utilities across the nation (App. 424–430).[19] With respect to the sharing of transmission system responsibilities

[16] Based on a charge of $3.08 per year per kw of capacity of Gainesville's largest generating unit (50 mw, which equals 50,000 kw) (App. 331).

[17] We show at p. 29, *infra*, that Gainesville assumes such responsibilities.

[18] A portion of Mr. Braitman's testimony is set forth at pages 238–274 of the appendix. This portion of the appendix is identical to the appendix filed in the court of appeals. As further portions of his testimony were found to be relevant to the proceedings before this Court, all of his relevant testimony (including a reprinting of all of the portions set forth at pages 238–274) now appears at pages 422–466 of the appendix. All references to Mr. Braitman's testimony in this brief will be to the latter set of pages.

[19] His testimony covered both fully coordinated pooling agreements under which total pool capacity resources are utilized to meet total pool loads (App. 427) and more limited pooling arrangements where each member is required to have sufficient generating capacity to meet its own loads and to maintain specified minimum reserves (App. 427–428). Refer-

within pools requiring each member to meet its own loads and provide specified reserves, Mr. Braitman noted that each member of such pools is further required to have sufficient transmission capacity to deliver its generating capacity reserve obligation to the pool transmission grid and to construct transmission facilities traversing its service territory (App. 428). No further attempt is made to apportion transmission investment responsibility among pool members (*ibid.*). Nor are participants on the periphery of the pools reviewed by the witness required to pay a portion of the annual costs of the pools' backbone transmission grids; they merely are obligated to maintain sufficient interconnection capacity to deliver their reserve obligations to adjacent pool members (App. 428–429).

Thus, the Commission's rejection of Florida Power's claim for recovery of transmission costs (App. 368) is consistent with the practice among power pools whose reserve sharing arrangements are similar to those existing on an informal basis among the members of the Florida Operating Committee. From a cost viewpoint, therefore, the Commission was correct in concluding that no additional monetary compensation

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ence was also made to interconnections between large and small utilities (App. 429). Mr. Braitman did not consider the members of the Florida Operating Committee to be a "pool" (App. 430), because his definition of a pool required each member to be "contractually obligated" to assume specified reserve and other responsibilities (App. 425), but he acknowledged the existence of an informal agreement among the Florida utilities to maintain specified operating reserves (App. 430, 436). He also noted the possibility that the Committee would evolve into a "pool" (App. 436).

is warranted for back-up service when an interconnected company maintains reserves and transmission and interconnection facilities commensurate with its demands on an interconnected network.

Finally, there is nothing inconsistent between the decision in this case and instances in which charges for standby emergency power have been approved by the Commission. *E.g., U.S. Department of the Interior, Southeastern Power Administration,* 39 FPC 992; *U.S. Department of the Interior, Southeastern Power Administration,* Commission Order Confirming and Approving Rates and Charges, issued June 29, 1970. Those cases involved the firm reservation of generating capacity on the system of the Southeastern Power Administration (the regional marketing agency for federal power) to meet emergencies on the purchasers' own electric systems. Standby charges are entirely appropriate in such cases since the capacity reserved must be made available to the purchasers on demand and thus cannot be counted on by the Southeastern Power Administration to be available to meet other projected demands of its system. By contrast, Florida Power would be under no firm obligation to provide power or reserves to Gainesville; Gainesville would have no recourse if, at a time when it needed emergency power, none was available on the interconnected system. The charge Florida Power seeks to impose would be for the mere existence of an interconnection and amounts to an economic penalty.

3. *Consistency with prior Commission practice.* The court of appeals' requirement that relative benefits

be taken into consideration in determining compensation terms among parties to an interconnection is contrary to the Commission's fundamental principle of setting rates on the basis of costs and of preventing utilities from charging economic rents resulting solely from their size or economic position. See, *e.g., South Carolina Generating Co.* v. *Federal Power Commission*, 249 F.2d 755 (C.A. 4), certiorari denied, 356 U.S. 912. In that case, an electric utility sought approval of a rate contract with another utility for the sale of a portion of its generating capacity where the charge, which exceeded the selling company's costs, represented a splitting of the difference between the seller's costs and those the purchaser would have incurred by constructing its own plant. The Commission reduced the proposed charge, holding that the reasonableness of the rate should be determined by the cost of service of the utility furnishing the generating capacity and not the value of the service to the purchaser. In its view, a value of service method would be "a radical departure from established ratemaking principles utilized by this Commission in the regulation of public utility rates in the electric industry where there is a clearly ascertainable cost of service" 16 FPC 52, 57.[20] While remanding the case to the

[20] In *Public Service Company of Oklahoma*, 25 FPC 656, the Commission approved rates charged by one party to a voluntary interconnection agreement because the revenues derived would not exceed the company's cost of service including an allowance for a fair return. Relying on its *South Carolina Generating Company* opinion, the Commission stated that "value of service" had no application to the facts of this case. *Id.* at 662.

Commission on other grounds, the Fourth Circuit on review affirmed the Commission's rejection of the value of service approach in fixing rates, noting that the Commission's insistence on rates based on the cost of service was in accordance with orthodox methods of ratemaking in utility cases. 249 F.2d 755, 759–762.

The decision in *South Carolina Generating Co.* is consistent with *Natural Gas Pipeline Company* v. *Federal Power Commission*, 120 F. 2d 625 (C.A. 7), reversed on other grounds, 315 U.S. 575. In that case, the Commission's prescription of a 6½% rate of return was attacked on the ground, *inter alia*, that reasonableness of rates is determined "not by what profit it is reasonable to make, but what is reasonable to charge for the services rendered." 120 F. 2d at 633. The court of appeals rejected this contention (120 F. 2d at 633) as inconsistent with

> the well-established holdings, backed by reason and experience, to the effect that a fair rate of return, on a fairly established rate base, supplies the correct test for reasonableness. The value of service to users is neither a reasonable rule, nor supported by judicial decisions.

Accord, *Mississippi River Fuel Corporation* v. *Federal Power Commission*, 121 F. 2d 159, 164 (C.A. 8).

II. THE COMMISSION CORRECTLY CONCLUDED THAT GAINESVILLE WOULD PLACE AN UNDUE ELECTRICAL BURDEN ON THE PROPOSED INTERCONNECTION AND WOULD ASSUME PROPORTIONATE ELECTRICAL RESPONSIBILITIES

A. EVALUATION OF BURDENS PLACED ON THE INTERCONNECTION

While there is no doubt that Gainesville *needs* the disputed interconnection more than Florida Power in the sense that if the interconnection were not effected Gainesville would have to construct additional generating capacity, the record fully supports the Commission's finding (App. 365, 411–412) that Gainesville would be contributing its proportionate share of instantaneous emergency service to Florida Power.

The Commission's staff presented an exhibit (Ex. 98) to demonstrate the electrical burden that Florida Power could be expected to place on the interconnected system. As explained by staff witness Braitman (App. 436–439) at the hearings before the Commission (which were held in 1967), the exhibit made use of projected 1969 loads and generator dependability ratings to show the probability that during 1969 the loads of the Florida Power system would exceed the system's generating capacity.[21] Considering Florida Power as a unit, its loss of load probability was between 0.0050 and 0.0061 in 1969 (App. 439, 453); stated another way, for every 1,000 hours of operat-

[21] The exhibit included as part of Florida Power's generating capacity the 200 mw of capacity of Tampa Electric's system contractually committed to Florida Power (App. 439, 453; see *supra*, p. 6.

ing time, there would be between 5 and 6.1 hours during which Florida Power would not be able to meet its loads from its own generation (App. 454). To meet such loads, of course, Florida Power would need to draw on its interconnections with other utilities. Under the proposed interconnection, Gainesville would supply its pro rata share of emergency power to meet Florida Power's demands, as Gainesville would be under the same operating reserve requirements as the other Florida utilities interconnected with Florida Power. We demonstrate at pp. 31–32, *infra,* that Gainesville could at times (including the time of Florida Power's annual peak load) provide emergency power in significant quantities.

Mr. Braitman also testified that, concurrently with the preparation of Exhibit 98, he calculated the probability of a loss of load in 1969 on the Gainesville system considered alone. Assuming that no new generating units were added (other than the two gas turbines which were under construction at the time of the hearings), his calculation yielded a loss of load probability of 0.000043 (App. 461). In other words, if the interconnection were made by 1969, Gainesville would depend on it for emergency power 4.3 out of every 100,000 hours (less than 25 minutes per year).[22] Thus, at least through 1969, the record estab-

[22] In 1969, Gainesville's installed generating capacity would still substantially exceed the 115 percent of annual peak load requirement imposed by the Commission as a condition of interconnection (App. 376), as it would then have 138.4 mw (see *supra,* p. 4) of generating capacity to meet a projected 1969 peak load of only 88.4 mw (Ex. 1). Gainesville's reliance on the interconnection in years subsequent to 1969 would in-

lishes that Florida Power would be far more likely to draw on the interconnected system for emergency power than would Gainesville.

B. EVALUATION OF RESPONSIBILITIES IMPOSED BY THE INTERCONNECTION

In support of its remand to the Commission, the court below stated (App. 502):

> But, although there is no direct cost, Florida Power, really its customers, will bear a substantial burden. They must bear the allocated fixed cost represented by the *added obligation* imposed under the terms of the ordered interconnection. And this burden will be reflected in their cost-based rates. * * * [Emphasis added.]

Contrary to this statement, however, the Commission's interconnection order does not impose any *added obligations* on Florida Power as the order does not require Florida Power to make any firm commitment of power to Gainesville;[23] nor will Florida Power be re-

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crease if its reserve margins decline. However, as the Commission noted on rehearing (App. 411), there was evidence that during the 10-year period from 1970–1979, Gainesville's average minimum reserves at the time of Florida Power's annual peak load would be 43 percent (App. 435)—well in excess of the Commission's minimum reserve requirement.

[23] In *Crisp County Power Commission* v. *Georgia Power Company*, 42 FPC 1179, 1189, 1195–96, the Commission specifically noted that, since Georgia Power did not have to reserve capacity on its system or purchase capacity from other systems in order to provide emergency service to Crisp County under the ordered interconnection, interconnection charges should not be assessed because no electrical burdens were placed on the Georgia Power system.

quired to expand its facilities. Florida's only obligation is to permit the interconnection to take place so that Gainesville may draw power in emergencies (for a reasonable fee) to the extent, and only to the extent, that such emergency power is available on the interconnected network. The availability of emergency service to Gainesville would be subordinate to Florida Power's own needs and any firm commitments to other systems with which Florida Power is interconnected.

The Commission's order does, however, impose significant obligations on Gainesville—obligations commensurate with the magnitude of Gainesville's participation in the interconnected network. First, Gainesville is obligated to construct and pay for, at an estimated expense of $3,000,000 (App. 368, 413–414), the interconnection facilities and the transmission line from such facilities to the Gainesville system (App. 375–376). By undertaking this expenditure, Gainesville will meet the traditional obligations of interconnected utilities (see, *supra,* pp. 21–22) to maintain sufficient interconnection and transmission facilities to enable them to deliver when needed their proportionate share of emergency power to the interconnected networks. Second, Gainesville is obligated to maintain installed generating capacity equal to at least 115 percent of its annual peak-hour demand (App. 376) and to maintain operating (or "ready" in the Committee's terminology; *see supra,* p. 14, n. 10) reserves in accordance with the procedures established by the Florida Operating Committee (App. 377). By

By complying with these reserve requirements, Gainesville will assume its proportionate share of the burden of providing adequate emergency reserves for the interconnected system of Florida utilities; the integrity of the Florida Operating Committee interconnected system would thus be preserved.

From the above analysis, it follows that Florida Power's requested standby charge for back-up service cannot be justified on the grounds either that Gainesville will place a disproportionate burden on the interconnection for emergency service or that Gainesville will fail to meet fully its electrical responsibilities as a member of the interconnection.

C. EVALUATION OF BENEFITS FROM THE INTERCONNECTION

The court of appeals found that the benefits to Florida Power from the interconnection are "largely illusory" (App. 502). The record, however, supports the Commission's finding that Florida Power *would* receive important and substantial benefits (App. 365–367). While we remain firmly of the view that a weighing of relative benefits is inappropriate to a determination of compensation terms among parties to an electrical interconnection, we emphasize here that the disparity of benefits between Gainesville and Florida Power is not as awesome as the court below indicated.

Among the benefits Florida Power would receive are gains in reliability. The results of the probability studies embodied in Exhibit 98 (see *supra,* pp. 26–28) demonstrate that an interconnection between Gaines-

ville and Florida Power would improve the reliability—*i.e.*, lessen the chance of a loss of load—of the Florida Power system even if Gainesville's installed reserves were reduced to zero (App. 438–439). Reliability of Florida Power's service in the Gainesville area would also improve as the company could rely on the fast rate of response of Gainesville's spinning reserves to meet sharp increases in area loads (App. 366, 414). Gainesville would supply this added reliability on account of both the fact that Florida Power has no generating facilities in the Gainesville area and the fact that the Gainesville generators are adjusted to respond to load increases at a faster rate than any of Florida Power's generators (App. 449).[24]

The record also establishes that at times Gainesville will be able to contribute emergency power to Florida Power far in excess of the 2.5 mw to 6 mw referred to by the examiner (App. 323) and cited by the court of appeals (App. 494). In discussing this point in its opinion denying rehearing, the Commission noted that the staff had shown that in some emergencies Gainesville would be able to contribute as much as 60 mw to 100 mw (limited by the capacity of the interconnection) to the interconnected system (App. 411). This conclusion was based on staff studies which showed that even after interconnection and at least through

[24] The contribution to improved bulk power supply reliability from an additional source of spinning reserves with quick load pick-up characteristics is well recognized by the electrical utility industry (A Report to the President by the Federal Power Commission, December 6, 1965, *Northeast Power Failure*, p. 44, Item 9).

1979, Gainesville would continue to maintain reserves substantially in excess of the 15 percent requirement of the Commission (App. 411, 435; Ex. 81). When these projected reserves of Gainesville are considered in conjunction with the substantial load diversity between Florida Power and Gainesville[25] (App. 216-218, 435), it is clear that Gainesville will be capable of providing significant emergency back-up service to the interconnected system. In view of these benefits to Florida Power, the Commission was justifiably "satisfied that the interconnection will permit a reciprocal exchange of benefits to the mutual advantage of both systems" (App. 412).

III. THE COURT BELOW FAILED TO GIVE DUE DEFERENCE TO THE COMMISSION'S INFORMED JUDGMENT IN THIS HIGHLY TECHNICAL AND COMPLEX FIELD

In remanding the case to the Commission without "even whisper[ing] what the formula should be" for determining compensation (App. 503), the court of appeals was apparently under the impression that it was giving the Commission wide latitude within which to determine under Section 202(b) of the Federal Power Act the "compensation * * * reasonably due" Florida Power from Gainesville as a result of the interconnection. In fact, however, the court's rejection of the Commission's "proportionate utility re-

[25] Load diversity exists when the annual peak loads of two systems occur at different times during the year. As noted above, p. 27, n. 22, during the period 1970-1979, Gainesville's average reserves at the time of Florida's annual peak load would be 43 percent (App. 411, 435).

sponsibility" approach has eleminated the only arrangement which, in the Commission's judgment, fairly reflects the economics of the situation and properly encourages the interconnection of electrical systems. By so doing, and by insisting upon an approach which would take into account the relative benefits received or savings realized by parties to an interconnection, the court failed to give appropriate deference to the Commission's judgment in this highly complex and technical field. See *Permian Basin Area Rate Cases,* 390 U.S. 747, 767; *Federal Power Commission* v. *Hope Natural Gas Co.,* 320 U.S. 591, 602. As this Court recognized in *Permian,* the Commission must be "free, within the limitations imposed by pertinent constitutional and statutory commands, to devise methods of regulation capable of equitably reconciling diverse and conflicting interests." 390 U.S. at 767.

CONCLUSION

The judgment of the court of appeals insofar as it denied enforcement of the Commission's order should be reversed.

Respectfully submitted.

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